MCS / PhD
Master of Computer Science
PhD in Computer Science

DEVELOP INNOVATIVE AND IMPORTANT RESEARCH IN COMPUTER SCIENCE.

cs.dal.ca/mcs
cs.dal.ca/phd
CREATE THE FUTURE

No matter where you are in your graduate education, the Faculty of Computer Science has a program that suits your current level of expertise.

Consider our highly regarded Master of Computer Science (MCS) program or PhD in Computer Science and choose from one of our many areas of specialization as you join the Faculty in our groundbreaking research.

WHY RESEARCH COMPUTER SCIENCE?

Graduate studies in computer science at Dalhousie University immerse you in a vibrant learning environment at one of Canada’s leading universities. Innovative and interdisciplinary programs; award-winning professors; and a Faculty that is actively engaged with industry-related research – at Dalhousie, you’ll find opportunities and motivation to succeed in your master’s or doctoral studies.

Because computer science permeates nearly all human endeavors from business and science to entertainment and medicine, you can work closely with our professors to find the right research area for you.

MASTER’S PROGRAM

Graduate students are a vital part of the extensive research conducted in the Faculty of Computer Science. As a master’s student here, you’ll have many opportunities to become involved with the investigation and the development of new knowledge.

The MCS is a full-time program that typically takes two years to complete.

The program consists of:

• 4 graduate courses in CS
• a successfully defended thesis

A master’s in computer science opens the door to a variety of careers and opportunities:

• leading teams in larger companies like Google and Microsoft, or medium-sized companies like T4G
• founding a start-up
• employment in government
• completing a PhD in computer science; or an interdisciplinary PhD
PhD PROGRAM
Enroll in Dalhousie’s PhD in Computer Science and conduct independent and original research in one of the Faculty of Computer Science’s research concentrations alongside internationally respected faculty members. Advance the frontier of knowledge and publish high-quality, peer-reviewed conference papers and journals.

The PhD program is designed to focus the student onto research early on, under the mentorship of a thesis supervisor, assisted by a supervisory committee. A PhD thesis often involves work on a research problem motivated by industry, in a team setting. Students are expected to lead a well-defined component of a wider project, and be the prime author in the resulting publications.

The PhD program requirements consist of:
• 2 graduate courses + additional background course(s) (if necessary)
• a Research Aptitude Defence
• a Thesis Proposal, and the Thesis Defense

By the time you’ve completed your degree, you will be ready for a career in industry, or within an academic setting:
• professors in computer science
• conducting advanced research in industrial or government research labs
• Chief Technical Officers
• CEO of their own start-up
Since its founding in 1997, the Faculty has developed research strengths in web information systems, health informatics, bioinformatics, human-computer interaction, computer networking, algorithms, e-business and intelligent systems. With over 30 faculty members, we host an active list of research groups and are home to Canada’s first Institute for Big Data Analytics.

**BIG DATA ANALYTICS & MACHINE LEARNING:**
Extracts insights and supports decision-making based on large sets of data that accumulate from human activity, which dramatic advances in computing, digital storage, networking, and sensor technologies have made possible.

**SYSTEMS & NETWORKS:**
Advances knowledge of computer systems that enable the information and communication technologies space of applications.

**HUMAN-COMPUTER INTERACTION & VISUALIZATION:**
Advances the interfaces between humans and computers in terms of the presentation of information for human consumption, and the design of technologies that make the use of computers useful, effective, and enjoyable.

The research programs at Dalhousie's Faculty of Computer Science are ideal for those with previous university education in Computer Science with high standing and a strong interest in research.